PATENT ABSTRACTS OF JAPAN

(54) DIGITAL CONTENTS RESERVATION AND DELIVERY SYSTEMRECORDING MEDIUM FOR PROGRAM FOR CONTENTS SERVERAND RECORDING MEDIUM FOR PROGRAM FOR DOWNLOADING TERMINAL

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a system for reserving and delivering large-volume digital contents without preparing special user's preparing facilities nor imposing temporal restrictions on the user.

SOLUTION: This system includes a contents server 2 which delivers contentsa reservation terminal 1 which reserves the delivery of the contents to the contents server 2and at least one downloading terminal 4 by which the user receives the reserved contents. Furtherthis system has a downloading terminal management center 3 which manages information regarding the downloading terminal 4 and selects the downloading terminal 4 according to positional information. The contents server 2 obtains the information regarding the downloading terminal 4 at the delivery destination of the contents having positional relation with the reservation terminal 1 and sends the information regarding the downloading terminal 4 back to the reservation terminal 1so that the delivery- reserved contents are delivered to the downloading terminal 4 as the delivery destination.

CLAIMS

[Claim(s)]
[Claim 1]It is a system characterized by comprising the following which carries out

request-to-print-out-files delivery of the digital contents stored in a contents server to a userIt is connected to the above-mentioned contents server via a communications networkand information about the above-mentioned download terminal is managedHave further a download terminal control center which chooses a download terminal connected with a given place in positionand the above-mentioned contents serverInformation about a download terminal of the address for delivery of digital contents connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal control centerA system constituting so that information about a download terminal of the above-mentioned address for delivery may be replied to a reservation terminal of the above-mentioned request-to-print-out-files origin and digital contents by which the delivery request to print out files was made may be delivered to a download terminal of the above-mentioned address for delivery.
A contents server which delivers digital contents stored in a contents database.
A reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents server.
At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents which reserved using the above-mentioned reservation terminal of a reserving agencyand were delivered from the above-mentioned contents server via a communications network.

[Claim 2]A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userA position information acquiring means which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the

above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationIt is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications networkand the above-mentioned reservation acceptance processing means and the 3rd means of communication of the abovePosition information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is providedThe above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkThe 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents serverthe above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of communication that receives digital contents which were connected to the above-mentioned contents server via a communications networkand in which the delivery request to print out files was

made [above-mentioned] by the above-mentioned contents serverA contents storage means which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansThe system according to claim 1 which gains digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned contents storage meansand possesses a contents download means downloaded to users' medium.

[Claim 3]being connected to the above-mentioned contents server via a communications network -- the above in a predetermined area -- it being connected to one set of a download terminalandeven if smallThe system according to claim 1 which receives digital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serveraccumulates the above-mentioned digital contentsand has further at least one set of a request-to-print-out-files contents delivery center which transmits the above-mentioned digital contents to a download terminal of the above-mentioned address for delivery.

[Claim 4]A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userA position information acquiring means which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which

received [above-mentioned]and includes the above-mentioned reservation confirmation informationIt is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkand the above-mentioned reservation acceptance processing means and the 3rd means of communication of the abovePosition information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkThe 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminaland a request-to-print-out-files contents delivery center to the above-mentioned contents serverevery predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of

communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkand the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerIt is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the 5th means of communication of the above and the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery centerThe system possessing a contents download means downloaded to users' medium according to claim 3.

[Claim 5]The system according to claim 1 connected by communications network provided with a means to notify the above-mentioned contents server of position information which the above-mentioned reservation terminal and the above-mentioned contents server can change into location information of the above-mentioned reservation terminal.

[Claim 6]A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userRequest-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand position information on a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned]and the above-mentioned position informationThe 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation

terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is providedThe above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkThe 4th means of communication that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents serverthe above -- it being connected to a download terminal database which manages position information and state information about one set of a download terminal even if smalland the 4th means of communication of the above and the above-mentioned download terminal databaseandBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of communication that receives digital contents which were connected to the above-mentioned contents server via a communications networkand in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serverA contents storage means which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansThe system according to claim 5 which gains digital contents corresponding to the above-mentioned

reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned contents storage meansand possesses a contents download means downloaded to users' medium.

[Claim 7]The above-mentioned reservation terminal and the above-mentioned contents server are connected by communications network provided with a means to notify the above-mentioned contents server of position information convertible into location information of the above-mentioned reservation terminalA request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userRequest-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand position information on a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which includes the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned]and the above-mentioned position informationand the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-

mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe 4th means of communication that the above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkreceives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents serverevery predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkand the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerIt is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the 5th means of communication of the above and the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery centerThe system possessing a contents download means downloaded to users' medium according to claim 3.
[Claim 8]A request-to-print-out-files application information input means which receives identification information of digital contents in which the above-mentioned reservation terminal reserves delivery from a userA position information input means which receives position information showing an installation area of an

address-for-delivery candidate's download terminal from a userRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide a reservation acceptance information output means which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents serverThe 2nd means of communication that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means to create the above-mentioned reservation acceptance information which gains the above-mentioned position information and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationIt is connected to the 3rd means of communication connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkand the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveThe above-mentioned position information from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents address-for-delivery acquisition means which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveA contents database which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseA contents delivering means which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe 4th means of communication that the above-mentioned download terminal control center is connected to the above-mentioned contents server via a communications networkreceives the above-mentioned position

information from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents serverevery predetermined area -- the above -- with a download terminal database which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on the above-mentioned position information received from the above-mentioned contents serverinformation about a download terminal of a request-to-print-out-files contents delivery center in an area relevant to the above-mentioned position information and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide a contents address-for-delivery selecting means replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminalThe 5th means of communication that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkand the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerIt is connected to a reservation confirmation information input means which receives reservation confirmation information from a userand the 5th means of communication of the above and the above-mentioned reservation confirmation information input means. Gain digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerand provide a contents download means downloaded to users' medium. The system according to claim 3.

[Claim 9]A contents server which delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userA procedure of receiving position information on the above-mentioned reservation terminal to a contents name and the above-mentioned reservation terminalA procedure of searching digital contents corresponding to the above-mentioned contents name from a contents databaseBased on position information on the above-mentioned reservation terminalit is connected to the above-mentioned contents server via a communications networkmanage information about the above-mentioned download terminaland the above-mentioned position information is transmitted to a

download terminal control center which chooses a download terminal connected with a given place in positionA procedure which acquires information and reservation acceptance information about a download terminal currently installed in a place which related to a place expressed by the above-mentioned position information in position from the above-mentioned download terminal control centerA procedure which notifies information and the above-mentioned reservation acceptance information about the above-mentioned download terminal to the above-mentioned reservation terminalA recording medium which recorded a command for making a contents server perform a procedure which delivers the above-mentioned digital contents on the address for delivery specified using information about the above-mentioned download terminal and in which computer reading is possible.

[Claim 10]A contents server which delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userIt is connected to the above-mentioned contents server via a communications networkand information about the above-mentioned download terminal is managedA procedure of receiving reserved information of contents delivery from a download terminal control center which chooses a download terminal connected with a given place in positionReceive digital contents corresponding to reserved information of the above-mentioned contents deliveryreceive an input of a procedure to accumulate and reserved information from a user from the above-mentioned contents serverand out of digital contents accumulated [above-mentioned]. A procedure of searching digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned userA procedure which downloads digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned user to media connectedA recording medium which recorded a command for making a download terminal perform a procedure of deleting digital contents downloaded [above-mentioned] and in which computer reading is possible.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]

[Field of the Invention]This invention relates to delivery of digital contentsand relates to the system for a request to print out files of mass digital contentsdeliveryand a receipt especially.
[0002]
[Description of the Prior Art]The distribution system of the digital contents to the specific address for delivery which downloads the formerfor examplemusica video clipor digital contents like an Electronic Book in a personal computer via the Internet from a contents server has spread widely. A user specifies specific placessuch as a personal computer installed in the houseDelivery of the digital contents to the specific place is reservedand the request-to-print-out-files distribution system of the digital contents to the specific address for delivery which delivers digital contents to the request-to-print-out-files place as which the contents server was specified is also known.
[0003]A user via the public use type terminal installed in a streeta convenience storeetc. like what is called a KIOSK terminal as a system by which it sees from a user and the address for delivery is not pinpointed on the other handThe digital-contents distribution system to the unspecified address for delivery which downloads the contents specified from the contents server to the medium of user possession connected to the public use type terminal is beginning to spread.
[0004]
[Problem(s) to be Solved by the Invention]Howevera user's equipmentfor examplethe digital-contents distribution system to the specific address for delivery like the personal computer installed in a user's houseIn the case of the digital-contents request-to-print-out-files distribution system to the specific address for deliverythe user cannot receive digital contents by a place where one has gone. In the situation where a mass circuit cannot be used with users' equipmenta long time will be covered for download and a circuit will be occupied. On the other handin order to use the mass circuit for download with users' equipmenteach user needs to hang great costssuch as circuit expense.
[0005]In order to charge the downloaded fee of digital contents certainly to a user in the case of the digital-contents distribution system to the specific address for deliveryor the digital-contents request-to-print-out-files distribution system to the specific address for deliveryA user needs to notify a user's personal information (for examplean addressa namea telephone numberor a credit card number etc.) to the contents server side. For exampleeven when prepaid cardssuch as a scratch cardare usedpersonal information is revealed as address-for-delivery information. Howevera user may desire to receive digital contents like the time of purchasing goods at a actual shop frontwithout revealing personal information.
[0006]In the case of the distribution system of the digital contents to the unspecified address for delivery like a KIOSK terminalala userWhen it is necessary to stand by in front of a KIOSK terminal and download of mass digital contents attains to a long time especially after choosing desired digital contents until download of the digital contents is actually completedit is pain for a user.

[0007]A user makes demands for download of desired digital contents on a contents server from a KIOSK terminal (.). Namelyreserve delivery of digital contents and a KIOSK terminal is once leftAfter the completion of download of the digital contents from a contents server to a KIOSK terminalAlthough it is also possible to build the digital-contents request-to-print-out-files distribution system to the unspecified address for delivery which receives the medium which the user visited the KIOSK terminal for the second timeand copied digital contents to the medium of user possession from the KIOSK terminal orby which digital contents were copiedIn the case of such a systemthe user needs to visit the setting position of a KIOSK terminal at least at the time of a request to print out files and a receipt.

[0008]This invention aims at offer of the request-to-print-out-files distribution system of the mass digital contents to the unspecified address for delivery where the user's anonymity was securedwithout burdening a user with time restrictionswithout preparing a special user's equipmentin order to solve the problem of the above-mentioned conventional technology.

[0009]

[Means for Solving the Problem]Drawing 1 is a principle lineblock diagram of this invention which attains the above-mentioned purpose. The contents server 2 with which an invention concerning claim 1 delivers digital contents stored in a contents databaseThe reservation terminal 1 used in order that it may be connected with the above-mentioned contents server 2 via the communications network 6 and a user may reserve delivery of digital contents to the above-mentioned contents server 2At least one-set of download terminal 4_1 used in order that a user may receive the above-mentioned digital contents which reserved using the above-mentioned reservation terminal 1 of a reserving agencyand were delivered from the above-mentioned contents server 2 via the communications network 7It is a system containing 4_2 and ... which carries out request-to-print-out-files delivery of the digital contents stored in the contents server 2 to a userIt is connected to the above-mentioned contents server 2 via the communications network 7and Above-mentioned download terminal 4_1Manage information about 4_2 and ...have further the download terminal control center 3 which chooses the download terminal 4 connected with a given place in positionand the above-mentioned contents server 2Information about the download terminal 4 of the address for delivery of digital contents connected with the reservation terminal 1 of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal control center 3It is the system constituting so that information about the download terminal 4 of the above-mentioned address for delivery may be replied to the reservation terminal 1 of the above-mentioned request-to-print-out-files origin and digital contents by which the delivery request to print out files was made may be delivered to the download terminal 4 of the above-mentioned address for delivery.

[0010]Drawing 2 is a lineblock diagram of a digital-contents request-to-print-out-

files distribution system concerning claim 2. According to the invention concerning claim 2the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userThe position information acquiring means 12 which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server 2The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationThe 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseThe contents delivering means 26 which transmits digital

contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-mentioned address for delivery is providedThe 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications networkreceives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents serverthe above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal databaseProvide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminal 4The 5th means of communication 43 that receives digital contents which were connected to the above-mentioned contents server via a communications networkand in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serverThe contents storage means 44 which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned contents storage meansThe contents download means 41 downloaded to users' medium is provided.

[0011]Drawing 3 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claims 3 and 4. An invention concerning claim 3 is connected to the above-mentioned contents server 2 via the communications network 7the above in a predetermined area -- it being connected to one set of the download terminal 4andeven if smallDigital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are receivedAt least one set of the request-to-print-out-files contents delivery center 5 which accumulates the above-mentioned digital contents and transmits the above-mentioned digital contents to the download

terminal 4 of the above-mentioned address for delivery is the system formed for every area.

[0012]According to the invention concerning claim 4the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userThe position information acquiring means 13 which acquires position information showing a whereabouts place of the above-mentioned reservation terminalRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server 2The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains position information on a reservation terminal of the above-mentioned request-to-print-out-files originand identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationThe 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-

print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseThe contents delivering means 26 which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications networkreceives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents server. every predetermined area — the above — with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminal 4The 5th means of communication 43 that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkand the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerIt is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a userand the 5th means of communication of the above and the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery centerThe contents download means 42 downloaded to users' medium is provided.

[0013]Drawing 4 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claims 5 and 6. According to the invention concerning claim 5the above-mentioned reservation terminal 1 and the above-mentioned contents server 2 are connected by the communications network 6 provided with a means 61 to notify the above-mentioned contents server of position information convertible into location information of the above-mentioned

reservation terminal.

[0014]According to the invention concerning claim 6the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userRequest-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server 2The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand position information on a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned]and the above-mentioned position informationIt is connected to the 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned download terminal via a communications networkand the above-mentioned reservation acceptance processing means and the 3rd means of communication of the abovePosition information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about a download terminal of the above-mentioned address for delivery from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseDigital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseThe contents delivering means 26 which transmits digital contents by which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to a download terminal of the above-

mentioned address for delivery is providedThe 4th means of communication 31 that the above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications networkreceives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about a download terminal of the above-mentioned distribution destination to the above-mentioned contents serverthe above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of the available above-mentioned address for delivery connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position is acquired from the above-mentioned download terminal databaseProvide the contents address-for-delivery selecting means 322 replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminal 4The 5th means of communication 41 that receives digital contents which were connected to the above-mentioned contents server via a communications networkand in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents serverThe contents storage means 44 which is connected to the 5th means of communication of the aboveand accumulates digital contents by which the delivery request to print out files was made [above-mentioned]It is connected to the reservation confirmation information input means 41 which receives reservation confirmation information from a userand the above-mentioned contents storage means and the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned contents storage meansThe contents download means 42 downloaded to users' medium is provided.
[0015]Drawing 5 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claim 7. According to the invention concerning claim 7it is connected to the above-mentioned contents server 2 via the communications network 7the above in a predetermined area -- it being connected to one set of the download terminal 4andeven if smallDigital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are receivedAccumulate the above-mentioned digital contents and the request-to-print-out-files contents delivery center 5 which transmits the above-mentioned digital contents to the download terminal 4 of the above-mentioned address for delivery is formedThe above-mentioned reservation terminal 1 and the above-mentioned contents server 2It is connected by the communications network 6 provided with a means 61 to notify the above-

mentioned contents server of position information convertible into location information of the above-mentioned reservation terminaland the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userRequest-to-print-out-files application information containing identification information of the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about a download terminal of the above-mentioned address for delivery from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server 2The 2nd means of communication 21 that receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originand position information on a reservation terminal of the above-mentioned request-to-print-out-files originand transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information including the above-mentioned reservation confirmation information from request-to-print-out-files application information which received [above-mentioned]and the above-mentioned position informationThe 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseand digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseThe contents delivering means 26 which transmits digital contents by

which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications networkThe 4th means of communication 31 that receives position information on a reservation terminal of the above-mentioned request-to-print-out-files origin from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents serverevery predetermined area -- the above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on position information on a reservation terminal of the above-mentioned request-to-print-out-files origin received from the above-mentioned contents serverInformation about a download terminal of a request-to-print-out-files contents delivery center in an area connected with a reservation terminal of the above-mentioned request-to-print-out-files origin in position and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminal 4The 5th means of communication 43 that receives digital contents by which were connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkand the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerThe reservation confirmation information input means 41 which receives reservation confirmation information from a userIt is connected to the 5th means of communication of the aboveand the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery centerThe contents download means 42 downloaded to users' medium is provided.

[0016]Drawing 6 is a lineblock diagram of a digital-contents request-to-print-out-files distribution system concerning claim 8. According to the invention concerning claim 8it is connected to the above-mentioned contents server 2 via the communications network 7the above in a predetermined area -- it being connected to one set of the download terminal 4andeven if smallDigital contents in which the delivery request to print out files was made [above-mentioned] by the above-mentioned contents server 2 are receivedAccumulate the above-mentioned digital contentsand the above-mentioned digital contents are provided by the request-to-print-out-files contents delivery center 5 which transmits to the

download terminal 4 of the above-mentioned address for deliveryand them the above-mentioned reservation terminal 1The request-to-print-out-files application information input means 11 which receives identification information of digital contents which reserve delivery from a userThe position information input means 15 which receives position information showing an installation area of an address-for-delivery candidate's download terminal from a userRequest-to-print-out-files application information including identification information and the above-mentioned position information on the above-mentioned digital contents is transmitted to the above-mentioned contents serverThe 1st means of communication 14 that receives reservation acceptance information which includes reservation confirmation information and information about an address-for-delivery candidate's download terminal from the above-mentioned contents serverProvide the reservation acceptance information output means 12 which presents to a user the above-mentioned reservation acceptance information received by the 1st means of communication of the aboveand the above-mentioned contents server receives the above-mentioned request-to-print-out-files application information from a reservation terminal of the above-mentioned request-to-print-out-files originThe 2nd means of communication 21 that transmits the above-mentioned reservation acceptance information to a reservation terminal of the above-mentioned request-to-print-out-files originA reservation acceptance processing means 22 to create the above-mentioned reservation acceptance information which gains the above-mentioned position information and identification information of digital contents from request-to-print-out-files application information which received [above-mentioned]and includes the above-mentioned reservation confirmation informationThe 3rd means of communication 24 connected with the above-mentioned download terminal control center and the above-mentioned request-to-print-out-files contents delivery center via a communications networkIt is connected to the above-mentioned reservation acceptance processing means and the 3rd means of communication of the aboveand the above-mentioned position information from the above-mentioned reservation acceptance processing means is passed to the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents address-for-delivery acquisition means 23 which acquires information about the above-mentioned address-for-delivery candidate's download terminaland the above-mentioned request-to-print-out-files contents delivery center from the above-mentioned download terminal control center via the 3rd means of communication of the aboveThe contents database 25 which accumulated digital contents which can be deliveredIt is connected to the above-mentioned reservation acceptance processing means and the above-mentioned contents databaseand digital contents corresponding to identification information of the above-mentioned digital contents from the above-mentioned request-to-print-out-files receptionist processing means by which the delivery request to print out files was made are gained from the above-mentioned contents databaseThe contents delivering means 26 which transmits digital contents by

which the delivery request to print out files was made [above-mentioned] via the 3rd means of communication of the above to the above-mentioned request-to-print-out-files contents delivery center is providedThe above-mentioned download terminal control center 3 is connected to the above-mentioned contents server via a communications networkThe 4th means of communication 31 that receives the above-mentioned position information from the above-mentioned contents serverand transmits information about the above-mentioned distribution destination candidate's download terminal to the above-mentioned contents serverevery predetermined area -- the above -- with the download terminal database 33 which manages position information and state information about one set of a download terminal even if small. It is connected to the 4th means of communication of the aboveand the above-mentioned download terminal databaseBased on the above-mentioned position information received from the above-mentioned contents serverinformation about a download terminal of a request-to-print-out-files contents delivery center in an area relevant to the above-mentioned position information and the available above-mentioned address-for-delivery candidate is acquired from the above-mentioned download terminal databaseProvide the contents address-for-delivery selecting means 32 replied to the above-mentioned contents server via the 4th means of communication of the aboveand the above-mentioned Dow load terminal 4 is connected to a request-to-print-out-files contents delivery center in a predetermined area via a communications networkThe 5th means of communication 43 that receives digital contents by which the delivery request to print out files was made [above-mentioned] from the above-mentioned request-to-print-out-files contents delivery centerThe reservation confirmation information input means 41 which receives reservation confirmation information from a userIt is connected to the 5th means of communication of the aboveand the above-mentioned reservation confirmation information input meansand digital contents corresponding to the above-mentioned reserved information input received from a user by which the delivery request to print out files was made [above-mentioned] are gained from the above-mentioned request-to-print-out-files contents delivery centerThe contents download means 42 downloaded to users' medium is provided.

[0017]A contents server with which an invention concerning claim 9 delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userA procedure of receiving position information on the above-mentioned

reservation terminal to a contents name and the above-mentioned reservation terminalA procedure of searching digital contents corresponding to the above-mentioned contents name from a contents databaseBased on position information on the above-mentioned reservation terminalIt is connected to the above-mentioned contents server via a communications networkmanage information about the above-mentioned download terminaland the above-mentioned position information is transmitted to a download terminal control center which chooses a download terminal connected with a given place in positionA procedure which acquires information and reservation acceptance information about a download terminal currently installed in a place which related to a place expressed by the above-mentioned position information in position from the above-mentioned download terminal control centerA procedure which notifies information and the above-mentioned reservation acceptance information about the above-mentioned download terminal to the above-mentioned reservation terminalIt is the recording medium which recorded a command for making a contents server perform a procedure which delivers the above-mentioned digital contents on the address for delivery specified using information about the above-mentioned download terminal and in which computer reading is possible.

[0018]A contents server with which an invention concerning claim 10 delivers digital contents stored in a contents databaseA reservation terminal used in order that it may be connected with the above-mentioned contents server via a communications network and a user may reserve delivery of digital contents to the above-mentioned contents serverDigital contents delivered from the above-mentioned contents server via a communications network are received. At least one set of a download terminal used in order that a user may receive the above-mentioned digital contents reserved using the above-mentioned reservation terminal of a reserving agency is included. In a system which carries out request-to-print-out-files delivery of the digital contents stored in a contents server to a userIt is connected to the above-mentioned contents server via a communications networkand information about the above-mentioned download terminal is managedA procedure of receiving reserved information of contents delivery from a download terminal control center which chooses a download terminal connected with a given place in positionReceive digital contents corresponding to reserved information of the above-mentioned contents deliveryreceive an input of a procedure to accumulate and reserved information from a user from the above-mentioned contents serverand out of digital contents accumulated [above-mentioned]. A procedure of searching digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned userA procedure which downloads digital contents corresponding to reserved information of the above-mentioned contents delivery which agrees with reserved information from the above-mentioned user to media connectedIt is the recording medium which recorded a command for making a download terminal perform a procedure of deleting digital contents downloaded [above-mentioned] and in which computer reading is possible.

[0019]
[Embodiment of the Invention]Nextan embodiment of the invention is described. This invention reserves download of mass contents from a portable telephonea public telephoneetc.and relates to the system which receives mass contents in the nearby specific places (for examplespecific public telephone etc.) of a street corner.

[0020]According to this inventiona digital-contents request-to-print-out-files distribution systemThe reservation terminal which can acquire position information and performs the contents delivery request to print out files by a userBy managing the contents server which delivers the contents required of the download terminal from the reservation terminalthe setting position of a download terminalan availabilitya working stateetc.The download terminal control center which tells a contents server about the download terminal in which the contents delivery near the reservation terminal is possibleIt is constituted by at least one set of the contents storage means which saves the contents which received from the contents serverand the download terminal which copies the contents saved at the contents storage means at the user's media according to a user's demand.

[0021]The reservation terminal which consists of immobilization which can acquire the position information on (1) presentor a portable communication terminal in this system is usedSpecify the digital contents reserved by connecting with a contents server through a line switching networkthe Internetetc.and (2) contents serversIf the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquiredTransmit address-for-delivery position information etc. to a download terminal control centerand an identification numberinstallation place informationetc. of a download terminal of the address for delivery which were specified from informationincluding the setting position of (3) download terminalsa working stateetc.are acquired from a download terminal control center(4) Notify the installation place information of the acquired download terminal to a reservation terminaland. contents can be delivered to the contents storage means connected to the download terminal -- (5) -- therebya userIn the download terminal installed in the setting position notified to the reservation terminalthe delivered contents saved at the contents storage means are copied to a user's media.

[0022]The above-mentioned contents storage means can be provided in a download terminal. In this casethe reservation terminal which consists of immobilization which can acquire the position information on (1) presentor a portable communication terminal in this system is usedSpecify the digital contents reserved by connecting with a contents server through a line switching networkthe Internetetc.and (2) contents serversIf the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquiredby transmitting address-for-delivery position information etc. to a download terminal control center. (3) Acquire an identification numberinstallation place informationetc.

of a download terminal of the address for delivery which were specified from informationincluding the setting position of a download terminala working stateetc.from a download terminal control center at the time of a contents delivery request to print out files(4) Notify the installation place information of the acquired download terminal to a reservation terminaland. contents can be delivered to the download terminal of the acquired identification number — (5) — therebya userIn the download terminal installed in the setting position notified to the reservation terminalthe delivered contents saved in the download terminal are copied to a user's media.

[0023]It is possible to provide the request-to-print-out-files contents delivery center connected with the download terminal in the high-speed networkand to accommodate a contents storage means in this request-to-print-out-files contents delivery center. In this system(1) contents storage means is provided in a request-to-print-out-files contents delivery centerand the reservation terminal which consists of immobilization which can acquire the position information on (2) presentor a portable communication terminal is usedSpecify the digital contents reserved by connecting with a contents server through a line switching networkthe Internetetc.and (3) contents serversIf the position information on the reservation terminal as the identification number of the contents for request-to-print-out-files delivery and position information on the address for delivery is acquiredby transmitting address-for-delivery position information etc. to a download terminal control center. (4) The identification number and the local specific information of a request-to-print-out-files contents delivery center of the address for delivery which were specified using the area-of-responsibility information on the request-to-print-out-files contents delivery center shared in a specific areaAcquire the installation place information etc. of the download terminal accommodated in the high-speed network in the area from a download terminal control centerand notify (5) area specific information and the installation place information of a download terminal to a reservation terminaland. delivering contents to the request-to-print-out-files contents delivery center of the acquired identification number — (6) — a user being requiring contents of a request-to-print-out-files contents delivery centerand from a download terminaltherebyThe contents delivered in the request-to-print-out-files contents delivery center can be transmitted to a download terminal using the high-speed network in the areaand it can copy to a user's media.

[0024]Or a reservation terminal may specify a contents receipt locationand it may constitute it so that it may send out. In this systema reservation terminal is a reservation terminal which can specify the area and position which receives the present not position information but contentsand can transmitand can opt for contents delivery based on the specified position.

[0025]User ID may be inputted into a reservation terminal at the time of a request to print out filesuser ID may be inputted into a download terminal at the time of a receiptand a user may be specified. In this systemat the time of (1) request to print out filestransmit to a contents server and user ID from a reservation terminal (2) contents serversWhen user ID is delivered with contents in a download

terminal or the request-to-print-out-files contents delivery center and (3) users input user ID in the case of the receipt of contents(4) A download terminal or the request-to-print-out-files contents delivery center can check whether user ID is compared and a just subscriber is try to perform the receipt of contents.

[0026]By equipping a reservation terminal and a download terminal with a card readerit is possible to use card ID instead of user IDand to check a subscriber by inserting a card in a card reader.

[0027]Hereafterwith reference to an accompanying drawingvarious examples of this invention are described in detail.

[0028]Drawing 7 is a lineblock diagram of the digital-contents distribution system by the 1st example of this invention. As shown in the figurethe system of this example is constituted by the reservation terminal 1the contents server 2the download terminal control center 3two or more download terminals 4and the user media 9.

[0029]The reservation terminal 1 is a terminal which specifies contents to access the contents server 2 and perform request-to-print-out-files download to. This reservation terminal 1 is a terminal which that current position can acquire from the contents server 2. As such a reservation terminal 1PHSa portable telephone with GPSa public telephone with position informationa general telephone set (the notified sender number to position information acquisition is possible)a personal computer (position information transmitting-function use)etc. can be usedfor example.

[0030]The reservation terminal 1 is provided with the following.
The input part 16 which are input devicessuch as a connections set to a contents servera keyboard for performing the input from userssuch as contents specificationa dial button.
The communications department 14 which is a network interface (for examplethe interface for line switching networksthe interface for the Internetor other communication interfaces) for connecting with the contents server 2.
The outputting part 17 which outputs the data of the position of the menu of the contents acquired from the contents server 2a confirmation numberand the download terminal 4etc. with a displaya soundetc.

[0031]The reservation terminal 1 is a portable telephone with GPSetc.and in performing the detecting position of a self-terminal independently and performing position information to the contents server 2the reservation terminal 1 possesses the position detectors 13such as a GPS device which detects the position information on the reservation terminal 1. When the reservation terminals 1 are built-in endssuch as a public telephone and an Internet terminaland it is a terminal of the type which cannot perform reference-by-location profit from the exteriorthe position detector 13The position information on a self-terminal is held and the contents server 2 is notified of the position information currently held at the time of connection with the contents server 2. The reservation terminal 1 like the general telephone set which can acquire position informationsuch as a sender

number of a terminalfrom the exterior using an addresser telephone number notice function does not have the necessity of providing the position detector 13.

[0032]The contents server 2 is a server which a contents providing agent holdsand by connection from the reservation terminal 1. Receive a request to print out files of contents deliveryacquire the position of a reservation terminaltransmit to the download terminal control center 3and the position of content size and a reservation terminal by thisThe contents which received the request to print out files from the download terminal control center 3 to the replied nearby download terminal 4 are delivered with a confirmation number.

[0033]The contents server 2 notifies installation place informationa confirmation numberetc. of the download terminal 4 which were received from the download control center 3 to the reservation terminal 1 at the time of a request to print out files. The contents server 2 may transmit a delivery completion notification to the reservation terminal 1 at the time of the end of contents delivery.

[0034]The contents server 2 may be realized with the gestalt installed for every contents providing agentand the gestalt in which only one server of representation is installed.

[0035]The contents server 2 has the following.

The position acquisition part 26 which acquires the position information on the reservation terminal 1.

The control section 27 which controls operation of a seriessuch as receiving the request to print out files from the reservation terminal 1acquiring the information on the download terminal 4 as the contents address for delivery from a download terminal control centerand performing contents delivery to the download terminal 4.

Communications department (1) 21 which is an interface for performing communication with the reservation terminal 1.

Communications department (2) 24 which are an interface for performing communication with the download terminal control center 3 and the download terminal 4and the contents database 25 which accumulates the contents for delivery.

[0036]Drawing 8 is a figure explaining an example of the structure of the contents database 25 used through explanation of various examples of this invention. As shown in the figurethe contents database 25 includes a contents namecontent sizeand the field holding a contents file.

[0037]the contents server's 2 position acquisition part 26 -- a terminal [like a portable telephone with GPS] whose reservation terminal 1 is -- orIn being a terminal like built-in endssuch as a public telephone and an Internet terminal of a cover halfPosition information is acquired from the reservation terminal 1and when the reservation terminal 1 is a terminal like a general telephone setbased on the sender number acquired from the line switching network 6the position of the reservation terminal 1 is acquired using a telephone number-position information translation table.

[0038]The download terminal control center 3 Management of a download terminal. For examplesetting position managementcontents accumulating part capacity managementtask managementor status management is performedFrom the content size and position information which were received from the contents server 2. It exists in nearby [of the specified position]and the downloadable download terminal 4 which fulfills conditionslike there is an availability for content size is chosenand the contents server 2 is notified of the selected identification number of the download terminal 4 and installation place informationand a confirmation number.

[0039]The download terminal control center 3 which manages the download terminal 4 is provided with the following.

The communications department 31 which performs communication with the contents server 2.

The download terminal database 33 which saves the setting position of all the download terminalsthe availability of a contents accumulating parta state (failure)etc.

The contents delivery selecting part 32 which specifies the download terminal of the address for delivery using the download terminal database 33 from the position information acquired from the contents server 2and content size.

[0040]Drawing 9 is an explanatory view of an example of the structure of the download terminal database 33 by the 1st example of this invention. As shown in the figurethe download terminal database 33 Address-for-delivery access informationIncluding the field holding the availability and state of a setting position and a contents accumulating partespecially in this example. Statessuch as a failure condition of a terminalare contained in a connection name [meaning / for connecting with a download terminal in the address-for-delivery access information field]and the setting position field in the number of the availability by a byte unitand the Status field at latitude longitude and the availability field of the contents accumulating part.

[0041]Although the download terminal 4 is a wide area like the Internetit considers the case where reservation of a broadband is connected with the contents server 2 via the difficult network 7. The download terminal 4 holds contents and the confirmation number which were transmitted by the contents server 2and copies the target contents to user media out of the contents accumulated by a user's operation.

[0042]It assumes that many download terminals 4 are installed in public placessuch as a streeta convenience storeor a station yard.

[0043]The download terminal 4 is provided with the following.

The input parts 45such as a keyboard for a user to input a confirmation number etc. or a button.

The contents accumulating part 44 which accumulates the contents etc. which were transmitted by the contents server 2.

Communication 43 which performs communication with the communications

department which performs communication with the contents server 2 and the download terminal control center 2.

The download part 42 which is an interface for copying the contents accumulated in the contents accumulating part 44 to user mediaThe control section 46 which controls copying the target contents to user media out of the contents which received delivery of the contents from the contents server 2and were accumulated according to a user's operation etc.

[0044]Drawing 10 is an explanatory view of an example of the structure of the contents accumulating part 44 by the 1st example of this invention. As shown in the figurethe contents accumulating part 44 includes the field where a confirmation numbera contents namecontent sizea contents filea contents server nameand a contents loaded state are saved.

[0045]The user media 9 are information media for a user to bring contents homememoriessuch as MOCD-RDVDa hard diskand CompactFlash (registered trademark)-- orThe PDA terminal provided with the memory and the high speed interface etc. may be sufficientand the medium which can be written on at high speed than transmission of the network 7 course between contents server download terminals is desirable.

[0046]The connection between the user media 9 and the download terminal 4The serial/parallel interface by a point of contactan infrared ray interfacea wireless interfaceor other interfaces realizeand the interface which can communicate at high speed is more desirable than between contents server download terminals.

[0047]Nextoperation of the system by the 1st example of this invention is explained with reference to the message sequence chart shown in drawing 11.

[0048]Firstthe operation at the time of a request to print out files of this system shown by Step 15 from Step 1 of the timing chart is explained.

[0049]In "contents selection" of Step 1the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminaland connection is made to a contents server from a reservation terminal in "connection" of Step 2. Contents may be specified that a user inputs a contents name by a keyboard etc.or by choosing it as beforehand from the list of contents names acquired with the reservation terminal.

[0050]When reservation terminals are telephonessuch as a portable telephonePHSa public telephoneand a general telephone setconnectionIt realizes by carrying out call origination to a contents server's telephone numberand when a reservation terminal is an Internet terminalit accesses using a contents server's server namean IP addressetc.

[0051]If a contents server is connected with a reservation terminala contents name with selected "contents selection" will be transmitted to a contents server from a reservation terminal by "contents specification (position information / terminal ID)" of Step 3. When a reservation terminal is a terminal which performs a detecting position independently at this timeOr reservation terminals are built-in endssuch as a public telephone and an Internet terminaland when position

information is being stored by the position detectora reservation terminal transmits both the position information detected with the reservation terminaland the position information accumulated to a contents server. When reservation terminals are reservation terminals (a general telephone seta PHS terminaletc. which perform the notice of a sender number) which can perform a detecting position by the contents server sideTransmission of the position information from a reservation terminal to a contents server is not performedbut terminal ID (ID used as the key of a detecting positionfor examplea telephone numberan IP addressetc.) of a reservation terminal is passed by the notice of a sender numberetc.

[0052]A contents server acquires the position information on a reservation terminal by "reference-by-location profit" of Step 4after "contents specification" is performed from a reservation terminal. When a contents server uses the received position information as it was when position information is received from a reservation terminaland position information is not receivedposition information is detected from the telephone number etc. of the reservation terminal gained by the notice of a sender numberetc.

[0053]A contents server searches the content size and the contents file corresponding to the contents name with "content retrieval" of Step 5 from a contents database by using as a key the contents name received by "contents specification."

[0054]Nextby the "contents address-for-delivery information requirements" of Step 6 a contents serverThe content size corresponding to the contents server name which specifies a self-serverthe position information acquired by "position information"and the contents name searched with "content retrieval" is transmitted to a download terminal control centerand specification of the optimal download terminal for contents delivery is required.

[0055]If a download terminal control center receives "contents address-for-delivery information requirements"it will be "contents address-for-delivery search" of Step 7and the optimal download terminal will be determined from the position information received from the contents serverand content size. The example of search of the optimal download terminal is later mentioned in explanation of a download terminal control center of operation.

[0056]A download terminal control center generates a confirmation number by "confirmation number generation" of Step 8 following "contents address-for-delivery search." The number which a confirmation number is a request-to-print-out-files identification number expressed in a meaning number etc.for exampleis generated from a serial numbertimeetc. is used.

[0057]A download terminal control center is Step 9when a download terminal is determined by "contents address-for-delivery search" and a confirmation number is generated by "confirmation number generation"The contents server name of a delivering agencycontent sizeand a confirmation number are transmitted as contents delivery permit information at a step to the determined download terminal.

[0058]If contents delivery permit information is receivedin "delivery permit information preservation" of Step 10a download terminal will save the contents server name of a delivering agencycontent sizeand a confirmation number at a contents accumulating partand will change the state of a download terminal into an authorized state.

[0059]A download terminal control center transmits the address-for-delivery access information which is a connection name of the determined download terminalthe installation place information of a download terminaland the generated confirmation number to a contents server in the "contents address-for-delivery information" on Step 11.

[0060]A download terminal control center is decreased by the size of the contents which it is [contents] "renewal of terminal DB" of Step 12and should have "the availability of a contents accumulating part" of a download terminal database deliveredafter transmission of "contents address-for-delivery information" is completed.

[0061]In [if a contents server gains address-for-delivery access informationinstallation place informationand a confirmation number for the "contents address-for-delivery information" on Step 11] Step 13The installation place information of a confirmation number and a download terminal is transmitted to a reservation terminal as "reserved information"and communication with a reservation terminal is ended at Step 14.

[0062]A reservation terminal will express this reserved information to the display for indication of an outputting partetc. as Step 15if the reserved information which consists of installation place information of a confirmation number and a download terminal at Step 13 is acquired. Preferablya surrounding map may be displayedpresenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the mapand the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason/ that a contents server transmits the map which generated the map including the setting position of a download terminaland was generated as installation place information of a download terminal to a reservation terminal] -- orA reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in formssuch as latitude longitude.

[0063]At Step 15the operation at the time of a request to print out files of the system by the 1st example is completed from the above step 1. Nextthe operation at the time of delivery of this system is explained.

[0064]The address-for-delivery access information which is a connection name of the download terminal whose contents server is the address for deliveryIn [if a confirmation numberthe content size of the contents which should be deliveredand ready for a contents file] Step 16By address-for-delivery access informationconnect with the download terminal of the address for delivery specifiedand by thenthe "contents delivery request" of Step 17. A download

terminal is asked for permission of contents delivery by transmitting the contents server namethe content sizeand the confirmation number which specify a self-server.

[0065]If a contents delivery request is receiveda download terminal in the record which was already received and was accumulated in the contents accumulating part in the "contents delivery authorization verification" of Step 18The record in which a contents server namecontent sizeand a confirmation number are in agreementand the state is set as "permission" is searched. And when a download terminal detects the record in which all the items correspondWhen it inspects whether there are any another contents under delivery (namelystate which is after delivery permission and has not carried out the completion of delivery yet) at the time and another contents under delivery do not existcontents delivery permissionis replied to a contents server at Step 19. When another contents under delivery existhe stands by and follows the completion of delivery of another contents under delivery to "contents delivery permission" of Step 19 after the completion of deliveryfor example. On the other handwhen the record in which all the items correspond cannot be detectedcontents delivery refusal is replied at Step 19.

[0066]In "contents delivery" of Step 20a contents server will transmit the contents containing a contents name and a contents file to a download terminalif "contents delivery permission" is received from a download terminal.

[0067]The download terminal which received contents from the contents serverThe contents name and contents file which received by "contents storage" of Step 21It saves on the record in the contents accumulating part by which the position of all the items was checked by contents delivery authorization verificationand when all contents are delivered and accumulated (i.e.when the state of the completion of delivery is reached)communication with a contents server is cut at Step 22.

[0068]In optionin Step 23it may connect with a reservation terminal and a contents server may notify a reservation terminal that contents delivery was completed by the "end of delivery" of Step 24and at the time of the completion of contents deliveryhe may constitute so that communication with a reservation terminal may be cut at Step 25. At this timein Step 26a reservation terminal displays the confirmation number etc. which were notified on the display for indication of an outputting partand transmits them to a userfor example.

[0069]Nextoperation of the contents server by the 1st example of this invention is explained with reference to the flow chart shown in drawing 12.

[0070]At Step 31a contents server stands by the connection from a reservation terminalBy "the contents namethe position information / terminal ID acquisition" of Step 32acquire after connection the contents name of the delivery booking object transmitted from the reservation terminaland depending on in additionthe case. Terminal ID of a reservation terminal convertible into place informationsuch as position information and latitude longitude which more specifically expresses the place of a reservation terminalor place information is acquired. A telephone

numberan IP addressetc. used as the key of a detecting position are included in terminal ID of a reservation terminalfor example.

[0071]When it judges whether position information is included in the information transmitted from the reservation terminal and information convertible into position informationsuch as terminal ID instead of the position information itselfis received at Step 33at Step 34position information is acquired from terminal ID of a reservation terminaland it progresses to Step 35. When a reservation terminal is a general telephone setit can change into position information from terminal ID using the database holding the correspondence relation between a telephone number and position informationIt is possible to acquire the position information on a base station by asking a position information center etc. the position of PHSwhen a reservation terminal is PHSWhen a reservation terminal is an Internet terminalit can change into position information from terminal ID using the database holding the correspondence relation between an IP address and position information.

[0072]When position information is included in the information transmitted from the reservation terminal at Step 33it progresses to Step 35 as it is.

[0073]A contents server searches corresponding contents (a contents name and a contents file) from a contents database by using the received contents name as a key in "content retrieval" of Step 35.

[0074]Nextthe contents server name which a contents server progresses to Step 36 and specifies a self-serverThe position information on a reservation terminalthe address-for-delivery access information which is the connection names of the download terminal which transmits content size to a download terminal control centerand serves as the address for delivery of contentsinstallation place informationand a confirmation number are received from a download terminal control center. The setting position (for examplelatitude longitude) of the download terminal currently held in the download terminal control center may be sufficient as installation place informationand the map containing a download terminal may be sufficient as itor the navigation information of the course guidance figure from a reservation terminal to a download terminal setting position may be sufficient as it.

[0075]Nexta contents server is Step 37and if the setting position and confirmation number of a download terminal which were acquired are notified to a reservation terminal and a notice is completedhe will cut communication with a reservation terminal at Step 38.

[0076]After a contents server is completed [communication with a reservation terminal]in order that the contents which progressed to Step 39 and were specified from the reservation terminal may be transmitted to a download terminalIt connects with a download terminal using the address-for-delivery access information which is a connection name of the acquired download terminaland a confirmation number is transmitted to a download terminal and delivery permission is required as the contents server name which specifies a self-serverand content size.

[0077]At Step 40a contents server judges whether the message of delivery

permission was obtained from the download terminalIn the step 42 when the message of delivery permission is obtainedafter progressing to Step 41delivering the contents name and contents file for delivery to a download terminal and cutting connection with a download terminal after the end of deliveryIt connects with a reservation terminalthe message of the end of delivery is transmitted to a reservation terminaland a series of processings are ended.

[0078]When the message of delivery permission is not obtained from a download terminal at Step 40a contents serverIt progresses to Step 43 and judges whether the message of delivery refusal was obtained from the download terminaland when it is a message of delivery refusala contents server progresses to Step 44performs error handlingsuch as performing a distribution impossible notice to a reservation terminaland ends a series of processings. It is Step 43and when judged with the message of delivery refusal not being obtained from a download terminala contents server returns to Step 40and he stands by until the message of delivery permission or delivery refusal is obtained from a download terminal.

[0079]Nextoperation of the download terminal control center by the 1st example of this invention is explained with reference to the flow chart shown in drawing 13.

[0080]A download terminal control center is Step 51and it is judged whether there are any contents address-for-delivery information requirements from a contents serverWhen judged with there being contents address-for-delivery information requirementsit progresses to Step 52 and the contents server name which specifies a contents serverthe position information on a reservation terminaland content size are received from a contents server.

[0081]Nexta download terminal control center chooses "optimum" download terminal in "contents address-for-delivery search" of Step 53 using the position informationthe content sizeand the download terminal database of the reservation terminal received by the contents address-for-delivery selecting part. Herethe other methods may be used although it is possible to use the method of following the following procedure 1. – 3.as an example of the selection standard of "optimum" download terminal. 1. "The availability of a contents accumulating part" saved in the download terminal database takes out a larger download terminal than content size. 2. Take out the download terminal where a state is breaking down and which is not in the download terminal taken out by 1. 3. From the download terminals taken out by 2.calculate the slant range of the position information on a reservation terminaland the setting position of a download terminaland choose the download terminal which is most close to a reservation terminal as an optimal download terminal.

[0082]In Step 54a download terminal control center generates the meaning number over this contents delivery request to print out filesafter selection of the optimal download terminal is completed next. The number generated as a meaning number combining a serial numberthe timethe contents namethe download terminaletc. which are managed in a download terminal control centerfor example may be sufficient.

[0083]Thenwhen a download terminal control center transmits a contents server

namecontent sizeand the generated confirmation number to the selected download terminal in Step 55It directs to permit delivery of the contents corresponding to the content size and the confirmation number which were specified from the contents server name as which the download terminal was specified.

[0084]A download terminal control center notifies to a contents server that the generated confirmation numbers are the address-for-delivery access information which is a connection name of the selected download terminaland the installation place information of a download terminal in the following step 56.

[0085]In Step 57a download terminal control center subtracts a part for content size from "the availability of a contents accumulating part" about the selected download terminal in a download terminal databaseand updates a database.

[0086]In Step 51when judged with their not being address-for-delivery information requirementshe follows a download terminal control center to Step 58and it is judged whether it is the deletion report from a download terminal. When judged with it being a deletion reporta download terminal control centerIt progresses to Step 59the content size of the deleted contents which are sent from a download terminal is acquiredand a part for the content size deleted within the download terminal database at Step 60 by the "availability of the contents accumulating part" corresponding to this download terminal is added.

[0087]When judged with it not being a deletion report at Step 58a download terminal control center returns to Step 51.

[0088]Nextoperation of the download terminal by the 1st example of this invention is explained with reference to the flow chart shown in drawing 14.

[0089]A download terminal is Step 71 and it is judged whether there was any delivery permission specification from a download terminal control centerWhen judged with there having been delivery permission specificationprogress to Step 72acquire a contents server namecontent sizeand a confirmation numberand at Step 73. A contents server namecontent sizeand a confirmation number are added to the record of a contents accumulating parta "state" is changed into an authorized stateand processing is ended.

[0090]When judged with it not being delivery permission specification at Step 71it is judged whether it progressed to Step 74and was connected by the contents serverand processing had a contents delivery request. When judged with the contents delivery request having occurred from the contents serverprocessing progresses to Step 75 and acquires the contents server namethe content sizeand the confirmation number which were received from the contents server.

[0091]Nextfrom the record which a download terminal is Step 76 and is held at the contents accumulating part. The record in which it agrees with the contents server namethe content sizeand the confirmation number which were acquired from the contents server at Step 75and the "state" is set as the authorized state is searched. It judges whether the record which fulfills conditions existsand at Step 77in not existingit progresses to Step 78and processing transmits the message of delivery refusal to a contents serverand it completes it.

[0092]When judged with the record which fulfills conditions by Step 77

existingprocessing progresses to Step 79 and a download terminalthe resource (for examplea network and a memory.) for receiving contents It inspects whether the standard for being in a ready-for-receiving ability state with the sufficient efficiency of disk storage capacitycentral-processing-unit timeetc. being secured is fulfilledand when judged with it not being in a ready-for-receiving ability stateit returns to Step 79and it stands by until a resource is secured and it will be in a ready-for-receiving ability state.

[0093]When judged with it being in a state receivable at Step 79processing progresses to Step 80 and transmits the message of contents delivery permission to a contents server.

[0094]Thenin Step 81 a download terminalReceive the contents which contain a contents name and a contents file from a contents serverprogress to Step 82and in a contents accumulating partThe contents name and contents file which received from the contents server are accumulated in the record judged that has agreed at Step 76a "state" is changed into storage statesand processing is ended.

[0095]It is judged whether at Step 74when judged with there having been no contents delivery requestprocessing of a download terminal progressed to Step 83and user media were connected. When judged with user media having been connected at Step 83processing progresses to Step 84the input of the confirmation number from the user through input partssuch as a keyboardis receivedand the confirmation number followed and inputted into Step 85 is searched from a contents accumulating part.

[0096]Nextit is judged whether processing progresses to Step 86the confirmation number compared with the confirmation number from a user is found in itand corresponding contents are accumulated (that isdoes the record in which the "state" is set as storage states exist or not?). When judged with contents being accumulatedprocessing progresses to Step 87 and writes the contents corresponding to a confirmation number in user media. After a write endprocessing notifies that progressed to Step 88 and deleted the record currently held in the contents accumulating part in relation to this confirmation numberand are Step 89 and the record was deleted to a download terminal control centerand ends a series of processings.

[0097]In Step 86when judged with the contents which the confirmation number compared with the confirmation number from a user is not foundor correspond not existingprocessing progresses to Step 90performs the display of an error messageetc.and ends a series of processings.

[0098]Drawing 15 is a lineblock diagram of the digital-contents distribution system by the 2nd example of this invention. As shown in the figurethe system of this example is constituted by the reservation terminal 1the contents server 2the download terminal control center 3the request-to-print-out-files contents distribution system 5 installed for every areatwo or more download terminals 4and the user media 9. One area is shown by the solid line 100 in the figure.

[0099]In the system of this examplethe contents server 2Digital contents are not directly delivered to the download terminal 4The download terminal which delivers

to the request-to-print-out-files contents delivery center 5and downloads digital contents to user media differs from the system by the 1st example with an above-mentioned point connected to the request-to-print-out-files contents delivery center 5 via the high-speed network 8 in the area.

[0100]The installation place information of the download terminal notified by the contents server 2 operation of the reservation terminal 1 by the 2nd exampleAlthough it is different from operation of the reservation terminal 1 by the 1st example at the point which is the information about one set of a specific download terminaland two or more download terminals in the same areain respect of othersit is the same. Thereforedetailed explanation about operation of the reservation terminal 1 is not given.

[0101]Operation of the contents server 2 by the 2nd exampleThe point that it is the information about two or more download terminals which have the installation place information of the download terminal acquired from the download terminal control center 3 in the same areaAlthough the address-for-delivery access information which is an initial entry of the contents address for delivery is different from operation of the contents server 2 by the 1st example in that it is not the connection name of a download terminal but a connection name of a request-to-print-out-files contents delivery centerin respect of othersit is the same. Thereforethe detailed explanation beyond this about operation of the contents server 1 is omitted.

[0102]Hereafteroperation of the download terminal control center 3 by the 2nd example of this inventionthe request-to-print-out-files contents delivery center 5and the reservation terminal 4 is explained in detail.

[0103]The download terminal control center 3 of the 2nd example is provided with the following.

The communications department 31 which performs communication with the contents server 2 like the case of the 1st example.

Download terminal database 33.

Contents delivery selecting part 32.

[0104]Drawing 16 is an explanatory view of an example of the structure of the download terminal database 33 by the 2nd example of this invention. The download terminal database 33 The delivery access information fieldIncluding the area name field and the download terminal setting position fieldin the address-for-delivery access information field. Namessuch as an address showing the area range where the download terminal corresponding to a request-to-print-out-files contents delivery center is installed in a connection name [meaning / for connecting with a request-to-print-out-files contents delivery center]and the area name fieldThe setting position of the download terminal connected to the corresponding request-to-print-out-files contents delivery center is stored in the download terminal setting position field in the form of latitude longitude.

[0105]Although the request-to-print-out-files contents delivery center 5 is installed for every area where the high-speed type network 8 was constructedand

it is one sideand is connected with the download terminal 4 via this high-speed type network 8it is another side and it is wide area typessuch as the InternetThe case where reservation of a broadband is connected to the contents server 2 via the difficult network 7 is considered. The request-to-print-out-files contents delivery center 5 accumulates contents and the confirmation number which were transmitted by the contents server 2and carries out the redistribution of the corresponding contents to the download terminal 4 according to the demand from the download terminal 4.

[0106]The request-to-print-out-files contents delivery center 5 is provided with the following.

The communications department 51 which communicates with the contents server 2 and the download terminal 4.

The contents accumulating part 52 constituted by the memory which accumulates the contents etc. which were received from the contents server 2.

[0107]Drawing 17 is an explanatory view of an example of the contents accumulating part 52 by the 2nd example of this invention. As shown in the figurethe contents accumulating part 52 is provided with the following.
Confirmation number field.
Contents name field.
Contents file field.

[0108]The download terminal 4 of the 2nd example of this inventionWhen a user connects user media to a download terminal and demands the download of contents by which the delivery request to print out files was madeBy requiring delivery of contents from a request-to-print-out-files contents delivery centercontents are acquired and the acquired contents are copied to user media. Thereforethe download terminal 4 by the 2nd example does not need to possess the contents accumulating part provided in the download terminal by the 1st example.

[0109]What should be careful of here the network 8 between the download terminal 4 and the request-to-print-out-files contents delivery center 5It is that the effect that are a high-speed type network and the high-speed writing of contents is made to user media by this at the time of a contents receipt rather than the network 7 between the contents server 2 and the request-to-print-out-files contents delivery center 5 is acquired.

[0110]Drawing 18 is a message sequence chart explaining the operation at the time of a contents delivery request to print out files of the system by the 2nd example of this inventionand contents delivery.

[0111]Contents selection of Step 101connection of Step 102contents specification of Step 103reference-by-location profit of Step 104and the content retrieval of Step 105Since it is the same as Step 1 of the message sequence of the system by the 1st example of this invention explained with reference to drawing 11Step 2Step 3Step 4and Step 5 respectivelyit does not explain any more.

[0112]If the contents request to print out files from a reservation terminal is receivedin Step 106a contents server will transmit the position information on a reservation terminal to a download terminal control centerand will demand the information on the request-to-print-out-files contents delivery center in which contents delivery is possible on the outskirts of a position of a reservation terminal.

[0113]A download terminal control center will determine a request-to-print-out-files contents delivery center from the received position information in Step 107if contents address-for-delivery information requirements are received. It is [operation / of a download terminal control center] under explanationand the deciding method of a request-to-print-out-files contents delivery center is mentioned later.

[0114]In Step 108a download terminal control center generates a confirmation numberafter performing contents address-for-delivery search at Step 107. As the 1st example was describeda confirmation number may be a request-to-print-out-files identification number which consists of a meaning number etc.and the number generated from a serial number or time may be sufficient as it.

[0115]After determining the contents address for delivery at Step 107 and generating a confirmation number at Step 108a download terminal control centerIn Step 109the address-for-delivery access information of the determined request-to-print-out-files contents delivery centerdownload terminal installation place informationand the generated reserved information are transmitted to a contents server.

[0116]In [if a contents server gains address-for-delivery access informationinstallation place informationand a confirmation number for the "contents address-for-delivery information" on Step 109] Step 110The installation place information of a confirmation number and a download terminal is transmitted to a reservation terminal as "reserved information"and communication with a reservation terminal is ended at Step 111.

[0117]A reservation terminal will express this reserved information to the display for indication of an outputting partetc. as Step 112if the reserved information which consists of installation place information of a confirmation number and a download terminal at Step 110 is acquired. Preferablya surrounding map may be displayedpresenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the mapand the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason/ that a contents server transmits the map which generated the map including the setting position of a download terminaland was generated as installation place information of a download terminal to a reservation terminal] -- orA reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in formssuch as latitude longitude.

[0118]Nextthe address-for-delivery access information which is a connection

name of the request-to-print-out-files contents delivery center whose contents server is the address for deliveryIf a confirmation numberthe contents name of the contents to deliverand a contents file are obtainedit will shift to a contents delivery stage and the contents containing a contents name and a contents file and a confirmation number will be transmitted to a request-to-print-out-files contents delivery center in Step 113.

[0119]A request-to-print-out-files contents delivery center saves the contents and the confirmation number which were received at Step 113 in Step 114 at a contents accumulating part.

[0120]Nextoperation of the system at the time of the contents receipt of the digital-contents request-to-print-out-files distribution system by the 2nd example of this invention is explained with reference to the message sequence chart shown in drawing 19.

[0121]In Step 121a user connects user media to the download part of a download terminal with one download terminal in the download terminal specified as installation place information at the time of a request to print out files. When a user inputs a confirmation number via the input part of a download terminalin Step 122 a download terminalIn Step 123it connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center set up and saved at the control section etc.a confirmation number is transmitted to a request-to-print-out-files contents delivery centerand delivery of the contents corresponding to a confirmation number is required. Herea prioriit is in the same area as a download terminaland the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center connected via the high-speed network is set up / saved at the control section of the download terminal.

[0122]In [if a request-to-print-out-files contents delivery center receives a contents request at Step 123] Step 124The contents corresponding to the confirmation number received from the download terminal are searched from a contents accumulating partand the gained contents are transmitted to a download terminal at Step 125.

[0123]In Step 125a download terminal receives contents from a request-to-print-out-files contents delivery centerand writes them in the user media to which contents are connected in Step 126.

[0124]On the other handthe request-to-print-out-files contents delivery center which transmitted contents to the download terminal deletes the record of the contents concerned from a contents accumulating part in Step 127.

[0125]The delivery request to print out files in the digital-contents request-to-print-out-files distribution system by the 2nd example of this inventiondeliveryand a receipt are performed by a series of above operations.

[0126]Drawing 20 is an operation flow chart of the contents server by the 2nd example of this invention.

[0127]At Step 131a contents server stands by the connection from a reservation

terminalBy "the contents namethe position information / terminal ID acquisition" of Step 132acquire after connection the contents name of the delivery booking object transmitted from the reservation terminaland depending on in additionthe case. Terminal ID of a reservation terminal convertible into place informationsuch as position information and latitude longitude which more specifically expresses the place of a reservation terminalor place information is acquired. A telephone numberan IP addressetc. used as the key of a detecting position are included in terminal ID of a reservation terminalfor example.

[0128]When it judges whether position information is included in the information transmitted from the reservation terminal and information convertible into position informationsuch as terminal ID instead of the position information itselfis received at Step 133at Step 134position information is acquired from terminal ID of a reservation terminaland it progresses to Step 135. When a reservation terminal is a general telephone setit can change into position information from terminal ID using the database holding the correspondence relation between a telephone number and position informationIt is possible to acquire the position information on a base station by asking a position information center etc. the position of PHSwhen a reservation terminal is PHSWhen a reservation terminal is an Internet terminalit can change into position information from terminal ID using the database holding the correspondence relation between an IP address and position information.

[0129]When position information is included in the information transmitted from the reservation terminal at Step 133it progresses to Step 135 as it is.

[0130]A contents server searches corresponding contents (a contents name and a contents file) from a contents database by using the received contents name as a key in "content retrieval" of Step 135.

[0131]Nexta contents server progresses to Step 136 and transmits the position information on a reservation terminal to a download terminal control centerThe address-for-delivery access informationthe installation place information of a download terminaland the confirmation number which are the connection names of the request-to-print-out-files contents delivery center used as the address for delivery of contents are received from a download terminal control center. The setting position (for examplelatitude longitude) of two or more download terminals corresponding to the request-to-print-out-files contents delivery center currently held in the download terminal control center may be sufficient as installation place informationor the map containing all the download terminals corresponding to a request-to-print-out-files contents delivery center may be sufficient as it.

[0132]Nexta contents server is Step 137and if the setting position and confirmation number of a download terminal which were acquired are notified to a reservation terminal and a notice is completedhe will cut communication with a reservation terminal at Step 138.

[0133]It connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is the connection name which he followed to Step 139 and was acquiredand a contents server delivers the

contents name and contents file for delivery to a request-to-print-out-files contents delivery centerand ends processing.

[0134]Drawing 21 is an operation flow chart of the download terminal control center by the 2nd example of this invention.

[0135]A download terminal control center judges whether it is Step 141 and there are any contents address-for-delivery information requirements from a contents serverand when judged with there being contents address-for-delivery information requirementsit progresses to Step 142 and it receives the position information on a reservation terminal from a contents server.

[0136]Nexta download terminal control center chooses a request-to-print-out-files contents delivery center in "contents address-for-delivery search" of Step 143 using the position information and the download terminal database of the reservation terminal received by the contents address-for-delivery selecting part. All the "download terminal setting positions" saved in the download terminal database as an example of selection of a request-to-print-out-files contents delivery centerA slant range with the place obtained from the position information on a reservation terminal can be calculatedand how a slant range chooses the request-to-print-out-files contents delivery center corresponding to the setting position which is the shortest can be considered. As the other methodsthe range specified at an address or latitude longitude is held for every request-to-print-out-files contents delivery centerand various methodssuch as choosing a request-to-print-out-files contents delivery center by which the place obtained from the position information on a reservation terminal is included in the rangecan be considered.

[0137]In Step 144a download terminal control center generates the meaning number over this contents delivery request to print out filesafter selection of a request-to-print-out-files contents delivery center is completed next. The number generated as a meaning number combining the address-for-delivery access information of a serial numberand timea contents name and a request-to-print-out-files contents delivery center etc. which are managed in a download terminal control centerfor example may be sufficient.

[0138]The address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center as which the download terminal control center was chosen in the following step 145It notifies to a contents server that the generated confirmation number is the installation place information of all the download terminals corresponding to a request-to-print-out-files contents delivery centerand processing is ended.

[0139]Drawing 22 is an operation flow chart of the request-to-print-out-files contents delivery center by the 2nd example of this invention.

[0140]In [when it judges whether the request-to-print-out-files contents delivery center had delivery of contents from the contents server in Step 151 and there is delivery of contents / progress to Step 152 and] the communications departmentIt accumulates in a contents accumulating part by using as a new record the contents namecontents fileand confirmation number which received the

contents namethe contents fileand the confirmation numbernext were received by progressing to Step 153.

[0141]In Step 151when judged with there having been no delivery from a contents serverit is judged whether the request-to-print-out-files contents delivery center progressed to Step 154and had a contents request from the download terminal. A request-to-print-out-files contents delivery center returns from a download terminal to Step 151when there is no contents request.

[0142]When judged with the contents request having occurred from the download terminala request-to-print-out-files contents delivery center progresses to Step 155and acquires the confirmation number transmitted from a download terminal.

[0143]Nextin Step 156a request-to-print-out-files contents delivery center searches the record containing the confirmation number acquired from the download terminal from a contents accumulating partand judges whether the record containing the confirmation number to compare was detected in Step 157. When a record is detecteda request-to-print-out-files contents delivery center transmits the contents file contained in the record searched by progressing to Step 158 to a download terminaland ends processing. In Step 157when judged with the confirmation number to compare not having been detecteda request-to-print-out-files contents delivery center progresses to Step 159transmits an error message to a Dow load terminaland ends processing.

[0144]Drawing 23 is an operation flow chart of the download terminal by the 2nd example of this invention.

[0145]A download terminal judges whether user media were connected in Step 161. When judged with user media having been connected at Step 161processingIt progresses to Step 162 and the input of the confirmation number from the user through input partssuch as a keyboardis receivedthe confirmation number followed and inputted into Step 163 is transmitted to a request-to-print-out-files contents delivery centerand the contents corresponding to a confirmation number are required.

[0146]Nexta download terminal judges at Step 164 whether the error message was replied from the request-to-print-out-files contents delivery center. Since the contents corresponding to a confirmation number are not accumulated in a request-to-print-out-files contents delivery center when an error message is replied at Step 164processing of a download terminal progresses to Step 165performs the display of an error messageetc.and ends processing.

[0147]When an error message is not replied at Step 164in the request-to-print-out-files contents delivery center. Since the contents corresponding to a confirmation number are accumulated and the contents are transmitted from a request-to-print-out-files contents delivery centera download terminalIn Step 166the contents transmitted from a request-to-print-out-files contents delivery center are written in the user media connectedand a series of processings are ended.

[0148]Nextdrawing 24 is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 3rd example of this invention. In this examplethe

request-to-print-out-files contents delivery center which is the contents address for delivery from a contents server is chosen using the area information inputted with the reservation terminal instead of the position information showing the place of the reservation terminal in the 2nd example.

[0149]Although the digital-contents request-to-print-out-files distribution system by the 3rd example of this invention shown in drawing 24 is similar with the digital-contents request-to-print-out-files distribution system by the 2nd example of this invention shown in drawing 15Only the point that the position detector 13 which detects the position of reservation terminal 1 the very thing is removed from the reservation terminal 1 is different. Since it is the same as that of the 2nd example described with reference to drawing 15other composition is not explained any more.

[0150]Drawing 25 is a message sequence chart of the system by the 3rd example of this invention. The operation at the time of a request to print out files of the system by the 3rd example and delivery is shown in the figure. The operation at the time of delivery of the system by the 3rd example and a receipt is the same as operation of the system by the 2nd example.

[0151]In "contents selection" of Step 201the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminaland specifies the area which receives contents in Step 202. Contents may be specified that a user inputs a contents name by a keyboard etc.or by choosing it as beforehand from the list of contents names acquired with the reservation terminal. or [that a user inputs an area name by a keyboard etc. also in a receipt area] -- orThe reservation terminal acquires the list which consists of a value of the area name field of the download terminal database of a download terminal control center a prioriand it may be specified when a user chooses from this displayed list.

[0152]Nexta reservation terminal is connected to a contents server at Step 203. When reservation terminals are telephonessuch as a portable telephonePHSa public telephoneand a general telephone setconnectionIt realizes by carrying out call origination to a contents server's telephone numberand when a reservation terminal is an Internet terminalit accesses using a contents server's server namean IP addressetc.

[0153]If a contents server is connected with a reservation terminala contents name and recipient region information will be transmitted to a contents server from a reservation terminal by "contents specification (recipient region information)" of Step 204.

[0154]In "content retrieval" of the step 205 after "contents specification" was performed from the reservation terminal for the contents serverThe content size and the contents file corresponding to the contents name are searched from a contents database by using as a key the contents name received by "contents specification."

[0155]Nextin Step 206a contents server transmits the recipient region information received from the reservation terminal to a download terminal control centerand demands the information on the request-to-print-out-files contents delivery

center which is the contents address for delivery.

[0156]In Step 207a download terminal control center will choose a request-to-print-out-files contents delivery center using the recipient region information and download terminal database which the contents address-for-delivery selecting part receivedif contents address-for-delivery information requirements are received. As an example of selection of a request-to-print-out-files contents delivery centerout of the "area name" saved in the download terminal database. How to search the record which is in agreement with the recipient region information received from the contents serverand to choose the request-to-print-out-files contents delivery center corresponding to the searched record can be considered. As the other methodsthe range specified at an address or latitude longitude is held for every request-to-print-out-files contents delivery centerand various methodssuch as choosing a request-to-print-out-files contents delivery center by which the place obtained from the position information on a reservation terminal is included in the rangecan be considered.

[0157]Steps 208209210211212213and 214 of the message sequence by the 3rd example of this inventionRespectivelysince it is the same as Steps 108109110111112113and 114 of the message sequence by the 2nd example of this inventionexplanation beyond this is not given here.

[0158]Operation of the reservation terminal by the 3rd example of this inventiona contents servera download terminal control centera request-to-print-out-files contents distribution systemand a download terminalExcept for the point that the position information on a reservation terminal is replaced by recipient region informationand the point that the contents address-for-delivery search method in a download terminal control center is replaced like Step 207since it is the same as operation of each component by the 2nd example of this inventionexplanation beyond this is not given here.

[0159]The common effect acquired by the 1st example of the above this inventionthe 2nd exampleand the 3rd example is as follows.

[0160](1) The contents delivery to a nearby place from a subscriber's address is attained.

[0161](2) It becomes downloadable [the contents in anonymity].

[0162](3) There is no necessity that the user itself prepares the line facility for downloadetc.and it is not occupied for download of a user's circuit.

[0163](4) By pinpointing a distribution placethe payment by the cash of the charge of contents becomes possibleand it can charge easily.

[0164]Since especially the user can receive contents only using the confirmation number notified at the time of a request to print out fileshe can secure a user's anonymity.

[0165]On the other handin the 4th example of this invention explained belowa user specifies user ID at the time of a contents delivery request to print out filesand specifies user ID also at the time of a contents receipt. Therebya user's specification and a subscriber's collation are performed.

[0166]Drawing 26 is a digital-contents request-to-print-out-files distribution

system lineblock diagram by the 4th example of this invention. As shown in the figurethe system of this example is constituted by the reservation terminal 1the contents server 2the download terminal control center 3the request-to-print-out-files contents distribution system 5 installed for every areatwo or more download terminals 4and the user media 9. One area is shown by the solid line 100 in the figure. Although the system configuration by the 4th example of this invention is similar with the system configuration by the 2nd example of this inventionit differs from the system configuration of the 2nd example in that the contents server 2 possesses the user database 25.

[0167]Drawing 27 is an explanatory view of an example of the user database by the 4th example of this invention. A user database is constituted by a user ID field and the password fieldand to user ID. The identification number decided to be a meaning for every user is registeredand the password for collation set up for every user ID for checking user ID is registered into the password.

[0168]Drawing 28 is an explanatory view of an example of the contents accumulating part by the 4th example of this invention. As shown in the figurethe contents accumulating part 52 includes user IDa passworda contents nameand the field that carries out contents file preservation. ID peculiar to the user whom the user who reserved delivery of corresponding contents specified as the user ID field is storedand this user ID corresponds to the user ID registered into the user database.

[0169]Drawing 29 is a message sequence chart at the time of a contents delivery request to print out files of the system by the 4th example of this inventionand contents delivery.

[0170]In "contents selection" of Step 301the user who reserves contents delivery specifies the contents reserved using the input part of a reservation terminaland enters user ID and a password in Step 302 using the keyboard of an input partetc. Contents may be specified that a user inputs a contents name by a keyboard etc.or by choosing it as beforehand from the list of contents names acquired with the reservation terminal.

[0171]Nexta reservation terminal is connected to a contents server at Step 303. When reservation terminals are telephonessuch as a portable telephonePHSa public telephoneand a general telephone setconnectionIt realizes by carrying out call origination to a contents server's telephone numberand when a reservation terminal is an Internet terminalit accesses using a contents server's server namean IP addressetc.

[0172]If a contents server is connected with a reservation terminalin Step 304a contents nameuser IDand a password will be transmitted to a contents server from a reservation terminal. When a reservation terminal performs a detecting position independentlyor when reservation terminals are built-in endssuch as a public telephone and an Internet terminaland position information is held to the position detectorThe position information detected with the reservation terminal or the position information currently held is simultaneously transmitted to a contents server from a reservation terminal in Step 304. Like the general

telephone set and PHS terminal with which a reservation terminal performs the notice of a sender numberwhen the detecting position of a reservation terminal can be performed by the contents server sidePosition information is not transmitted to a contents server from a reservation terminalbut terminal ID (for exampleID used as the key of a detecting positionsuch as an electric field number and an IP address) of a reservation terminal is instead told by the notice of a sender numberetc. to a contents server.

[0173]If a contents server is performed [contents specification] from a reservation terminal at Step 304in order that it may inspect whether the user of the reservation terminal side which performed contents specification is registered in Step 305It is investigated whether the user ID which receivedand a password are saved in the user database. When the user ID and the password which are in agreement with the user ID which receivedand a password at this time do not exist in a user databasea contents server replies error information to a reservation terminaland ends processing.

[0174]When the user ID and the password which are in agreement with the user ID which receivedand a password exist in a user databasea contents server acquires the position information on a reservation terminal in Step 306. When a contents server uses the received position information as it was when position information is received from a reservation terminaland terminal ID is receivedposition information is detected from the telephone number etc. of the reservation terminal gained by the notice of a sender numberetc.

[0175]Nexta contents server searches the content size and the contents file corresponding to the contents name from a contents database in Step 307 by using as a key the contents name received by "contents specification" of Step 304.

[0176]After a contents server searches contentsin Step 308he transmits the position information on a reservation terminal to a download terminal control centerand demands the information on the request-to-print-out-files contents delivery center in which contents delivery is possible on the outskirts of a position of a reservation terminal.

[0177]A download terminal control center will determine a request-to-print-out-files contents delivery center from the received position information in Step 309if contents address-for-delivery information requirements are received. It is as having already explained the deciding method of the request-to-print-out-files contents delivery center about the 2nd example of this invention.

[0178]Since user ID can be used in order to specify contentswhen a user receives contents in the case of the 4th example of this inventionthe download terminal control center does not need to generate a confirmation number.

[0179]After determining the contents address for delivery at Step 309a download terminal control center transmits the address-for-delivery access information and download terminal installation place information of a request-to-print-out-files contents delivery center which were determined to a contents server in Step 310.

[0180]If address-for-delivery access information and installation place information

are acquired for the "contents address-for-delivery information" on Step 310in Step 311a contents server will transmit the installation place information of a download terminal to a reservation terminal as "reserved information"and will end communication with a reservation terminal at Step 312.

[0181]A reservation terminal will express this reserved information to the display for indication of an outputting partetc. as Step 313if the reserved information which consists of installation place information of a download terminal at Step 311 is acquired. Preferablya surrounding map may be displayedpresenting of installation place information may be performed in a form which attaches a mark to the position which corresponds to the setting position of a download terminal on the mapand the guidance map showing the course from the current position of a reservation terminal to the setting position of a download terminal may be used for it more preferably. or [for this reason/ that a contents server transmits the map which generated the map including the setting position of a download terminaland was generated as installation place information of a download terminal to a reservation terminal] -- orA reservation terminal creates the surrounding map showing a setting position from the setting position of the download terminal acquired in formssuch as latitude longitude.

[0182]Nextthe address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center whose contents server is the address for deliveryIn [if the contents name of the contents to delivera contents file and a subscriber's user ID and password are obtainedwill shift to a contents delivery stageand] Step 314The contents containing a contents name and a contents fileuser IDand a password are transmitted to a request-to-print-out-files contents delivery center.

[0183]A request-to-print-out-files contents delivery center newly saves the contentsthe user IDand the password which were received at Step 314 in Step 315 at a contents accumulating part.

[0184]Drawing 30 is a message sequence chart at the time of the contents receipt of the system by the 4th example of this invention.

[0185]In Step 321a user connects user media to the download part of a download terminal with one download terminal in the download terminal specified as installation place information at the time of a request to print out files. When a user enters user ID and a password via the input part of a download terminalin Step 322 a download terminalIt connects with a request-to-print-out-files contents delivery center using the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center set up and saved in Step 323 at the control section etc.User ID and a password are transmitted to a request-to-print-out-files contents delivery centerand delivery of the contents corresponding to user ID is required. Herea prioriit is in the same area as a download terminaland the address-for-delivery access information which is a connection name of the request-to-print-out-files contents delivery center connected via the high-speed network is set up / saved at the control section of the download terminal.

[0186]In [if a request-to-print-out-files contents delivery center receives a contents request at Step 323] Step 124The contents corresponding to the user ID and the password which were received from the download terminal are searched from a contents accumulating partand the gained contents are transmitted to a download terminal at Step 325.

[0187]A download terminal is written in the user media to which the contents which received contents and were received from the request-to-print-out-files contents delivery center in Step 326 are connected in Step 325.

[0188]On the other handthe request-to-print-out-files contents delivery center which transmitted contents to the download terminal deletes the record of the contents concerned from a contents accumulating part in Step 327.

[0189]The delivery request to print out files in the digital-contents request-to-print-out-files distribution system by the 4th example of this inventiondeliveryand a receipt are performed by a series of above operations. Thussince the user who performs a delivery request to print out files of contents by the contents server side can be specified according to the 4th example of this inventionIt limits to the user who contracted and it becomes possible to provide service or to charge the price according to the delivered contents with prepaid onea creditetc.

[0190]Thereforethe effect acquired by the 4th example of this invention is as follows.

[0191](1) The contents delivery to a nearby place from a subscriber's address is attained.

[0192](2) The user who receives service of contents download can be specified.

[0193](3) There is no necessity that the user itself prepares the line facility for downloadetc.and it is not occupied for download of a user's circuit.

[0194](4) By pinpointing a user and a distribution placethe payment by the cash of the charge of contents becomes possibleand it can charge easily.

[0195]Effect 8: Originator information can be notified by exchange network undepending from the composition 5.

[0196]The digital-contents request-to-print-out-files distribution system by the example of above-mentioned this inventionWithout being limited to the example explained in the above-mentioned example The I/O device in a systemThe portion except hardware portionssuch as CPU of a communication deviceuser mediaand a computerand a memoryIt is also possible to build by the software (program) which realizes an equivalent functionto record on the disk unit etc.and to install in a computer if neededor to download to a computer via a networkand to perform digital-contents request-to-print-out-files distribution service. It is also possible to store the built program in portable recording mediasuch as a floppy (registered trademark) diska memory cardand CD-ROMand to use it general-purpose in the scene using such service.

[0197]As mentioned abovealthough the typical example of this invention was describedchange and application are variously possible for this invention in a claimwithout being limited to the above-mentioned example.

[0198]

[Effect of the Invention]As explained aboveaccording to this inventionwith the reservation terminals (for examplePHSthe portable telephone in which detect positions are possiblethe general telephone set in which the notice of a sender number is possiblea public telephone with position informationetc.) in which position information detection is possible. As for the user who reserved by reserving contents downloadit becomes possible to receive mass digital contents from a user's address at a nearby placewithout [without the user itself prepares a mass circuitand] occupying a user's own circuit.

[0199]The user can receive now the digital contents of large scale [place where one has gone].

[0200]At the time of a contents receipta user does not have the necessity of standing by in front of a download terminal until download is completedand when requiredhe can receive contents promptly.

[0201]In a reservation terminalit becomes possible to receive mass contents promptly at the place (for exampleplanned destination site) which a user wisheswhen required by pinpointing the area to download and reserving download of contents.

[0202]Since the receipt place of contents is pinpointedthe payment by the cashthe cardetc. of the charge of contents becomes easy.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1]It is a principle lineblock diagram of this invention.

[Drawing 2]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 3]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 4]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 5]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 6]It is a lineblock diagram of the digital-contents request-to-print-out-files distribution system by this invention.

[Drawing 7]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 1st example of this invention.

[Drawing 8]It is an explanatory view of an example of the structure of the contents database by the 1st example of this invention.

[Drawing 9]It is an explanatory view of an example of the structure of the download terminal database by the 1st example of this invention.

[Drawing 10]It is an explanatory view of an example of the structure of the contents accumulating part by the 1st example of this invention.

[Drawing 11]It is a message sequence chart of the system by the 1st example of

this invention.

[Drawing 12]It is an operation flow chart of the contents server by the 1st example of this invention.

[Drawing 13]It is an operation flow chart of the download terminal control center by the 1st example of this invention.

[Drawing 14]It is an operation flow chart of the download terminal by the 1st example of this invention.

[Drawing 15]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 2nd example of this invention.

[Drawing 16]It is an explanatory view of an example of the download terminal database by the 2nd example of this invention.

[Drawing 17]It is an explanatory view of an example of the contents accumulating part by the 2nd example of this invention.

[Drawing 18]It is a message sequence chart at the time of a contents delivery request to print out files of the system by the 2nd example of this inventionand contents delivery.

[Drawing 19]It is a message sequence chart at the time of the contents receipt of the system by the 2nd example of this invention.

[Drawing 20]It is an operation flow chart of the contents server by the 2nd example of this invention.

[Drawing 21]It is an operation flow chart of the download terminal control center by the 2nd example of this invention.

[Drawing 22]It is an operation flow chart of the request-to-print-out-files contents delivery center by the 2nd example of this invention.

[Drawing 23]It is an operation flow chart of the download terminal by the 2nd example of this invention.

[Drawing 24]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 3rd example of this invention.

[Drawing 25]It is a message sequence chart of the system by the 3rd example of this invention.

[Drawing 26]It is a digital-contents request-to-print-out-files distribution system lineblock diagram by the 4th example of this invention.

[Drawing 27]It is an explanatory view of an example of the user database by the 4th example of this invention.

[Drawing 28]It is an explanatory view of an example of the contents accumulating part by the 4th example of this invention.

[Drawing 29]It is a message sequence chart at the time of a contents delivery request to print out files of the system by the 4th example of this inventionand contents delivery.

[Drawing 30]It is a message sequence chart at the time of the contents receipt of the system by the 4th example of this invention.

[Description of Notations]

1 Reservation terminal

2 Contents server

3 Download terminal control center

4 Download terminal

6 and 7 Communications network

11 Request-to-print-out-files application information input means

12 Reservation acceptance information output means

13 Position information acquiring means

14 The 1st means of communication

21 The 2nd means of communication

22 Reservation acceptance processing means

23 Contents address-for-delivery acquisition means

24 The 3rd means of communication

25 Contents database

26 Contents delivering means

31 The 4th means of communication

32 Contents address-for-delivery selecting means

33 Download terminal database

41 Reservation confirmation information input means

42 Contents download means

43 The 5th means of communication

44 Contents storage means